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(71) Applicant (for all designated States except US): UNIVER-SITY OF SASKATCHEWAN TECHNOLOGIES INC. [CA/CA]; University of Saskatchewan, Room 304, Kirk Hall, Saskatoon, Saskatchewan S7N 5C8 (CA).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ROBERTSON, Albert, James [CA/CA]; Box 1, Groupsite 602, R.R.6, Saskatoon, Saskatchewan S7K 3J9 (CA). GUSTA, Lawrence, Victor [CA/CA]; 515 Copland Crescent, Saskatoon, Saskatchewan S7H 2Z4 (CA). WU, Guohai [CA/CA]; 2103 Kenderdine Road, Saskatoon, Saskatchewan S7N 4A9 (CA).
- (74) Agents: GALE, Edwin, J. et al.; Kirby Eades Gale Baker, Box 3432, Station D., Ottawa, Ontario K1P 6N9 (CA).
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[Continued on next page]

(54) Title: PLANT STRESS TOLERANCE GENES, AND USES THEREFOR

	GTC	GCA	ATC	CAT	TCA	GAG	CAC	SCA	NAC	CAC	GOG	NGC!	NGC	16 C	CA'	TTC	TAG	ATP	CTA	GCT(25 64	GAC	AT(:XGI	NTCA	76
AΨ	acc	GGT	CRT	arc	GCG4	GTC	CAG	GAG	SCT(3GC	GGC	GCC(:GC	GCT	SC T	GGT	GCT	GC7	AGC	GCT	3 9 C	GG¢(CGT	;GCI	GTG	154
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A	AGG	CAG	age	CGG	CCA	AGG.	ACG	CCA	367 7	rcc.	AGAJ	AGA	ca	agt	CG	OGA.	AGG.	ACG	CCG	CTT	GGG	AGA	CGG	CGG	AGGC	1090
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C	111	TGT	ACA	ATA	ACG	TGT	ccc	ATA	TGT.	TTA	an.	CCA	TGC	ACG	ATC	w	CAA	GTT	101	77C	TAI	W	WAX	w	w	A 1402

(57) Abstract: Plant stresses such as pest infestations, disease, drought, flood, and excessive temperatures can lead to significant losses of crops each There is a continuing need to develop novel plant varieties that are less susceptible to damage or loss by such stresses. The present invention provides for the isolation, characterization and use of an entirely novel class of plant genes, generally designated ROB5. Transgenic plants expressing ROB5 can show a dramatic improvement in their capacity to tolerate a variety of stress conditions. Moreover, ROB5 expression can further lead to marked increases in plant growth rates and plant vigor. The present invention encompasses all such ROB5 genes and peptides encoded thereby, plants expressing corresponding ROB5 constructs, and plant products thereof.

